

WHAT IS CLAIMED IS:

1. A pressure management apparatus for coupling to an end of a vent pipe of a storage tank comprising:

a) a housing including an interior and a connector configured for coupling to an end of a vent pipe;

b) a pressure valve located at least partially within the interior of the housing; and

c) a removable filter including a portion configured to be selectively securely held between a portion of the housing and a portion of a vent pipe in use, the filter being adapted to minimize and/or prevent debris from traveling from an interior of a storage tank to the interior of the housing, and wherein said apparatus is configured such that, in use, disengaging the housing from a vent pipe releases the filter to permit removal of the filter from components of the pressure management apparatus.

2. The pressure management apparatus of claim 1, including an additional filter adapted to minimize and/or prevent debris from traveling to the interior of the housing from the surrounding environment.

3. The pressure management apparatus of claim 1, further comprising an adapter removably engaged with the connector and configured for coupling to an end of a vent pipe.

4. The pressure management apparatus of claim 3, wherein the portion of the filter is trapped between a portion of the adapter and the portion of the housing, and wherein disengaging the housing from the adapter releases the filter to permit removal of the filter from components of the pressure management apparatus.

5. The pressure management apparatus of claim 3, wherein the adapter includes an interior and wherein the filter extends at least partially into the interior of the adapter.

6. The pressure management apparatus of claim 3, wherein the adapter comprises threads for coupling to an end of a vent pipe and additional threads for removable engagement with the connector of the housing.

7. The pressure management apparatus of claim 1, wherein the pressure valve includes a high pressure valve portion and a low pressure valve portion, wherein the high pressure valve portion is configured to release fluid from an interior of a storage tank to the surrounding environment when the pressure within an interior of a storage tank rises above a predetermined level and wherein the low pressure valve portion is configured to admit fluid from the surrounding environment to an interior

of a storage tank when the pressure within an interior of a storage tank drops below a predetermined pressure.

8. The pressure management apparatus of claim 7, wherein a high pressure valve seal is arranged between an area of the high pressure valve portion and an area of the housing and a low pressure valve seal is arranged between an area of the low pressure valve portion and another area of the high pressure valve portion.

9. The pressure management apparatus of claim 8, wherein at least one of the low pressure valve seal and the high pressure valve seal are formed from a pliable material.

10. The pressure management apparatus of claim 9, wherein the pliable material comprises a polymeric material.

11. The pressure management apparatus of claim 9, wherein the pliable material comprises an elastomeric material.

12. The pressure management apparatus of claim 9, wherein the pliable material comprises closed-cell material.

13. The pressure management apparatus of claim 12, wherein the closed-cell material comprises foam.

14. The pressure management apparatus of claim 12, wherein the closed-cell material comprises epichlorohydrin.

15. A pressure management apparatus for coupling to an end of a vent pipe of a storage tank comprising:

a) a housing including an interior and a connector configured for coupling to an end of a vent pipe; and

b) a pressure valve located at least partially within the interior of the housing and including a high pressure valve portion and a low pressure valve portion, a high pressure valve seal is arranged between an area of the high pressure valve portion and an area of the housing and a low pressure valve seal is arranged between an area of the low pressure valve portion and another area of the high pressure valve portion, at least one of the low pressure valve seal and the high pressure valve seal are formed from a pliable closed-cell material, wherein the high pressure valve portion is configured to release fluid from an interior of a storage tank to the surrounding environment when the pressure within an interior of a storage tank rises above a predetermined level and wherein the lower pressure valve portion is configured to admit fluid from the surrounding environment to an interior of a storage tank when the pressure within an interior of a storage tank drops below a predetermined pressure.

16. The pressure management apparatus of claim 15, including a filter adapted to minimize and/or prevent debris from traveling to the interior of the housing from the surrounding environment.

17. The pressure management apparatus of claim 15, including a removable filter including a portion configured to be selectively securely held between a portion of the housing and a portion of a vent pipe in use, the filter being adapted to minimize and/or prevent debris from traveling from an interior of a storage tank to the interior of the housing, and wherein, in use, disengaging the housing from a vent pipe releases the filter to permit removal of the filter from components of the pressure management apparatus.

18. The pressure management apparatus of claim 17, including an adapter removably engaged with the connector of the housing and configured for coupling to an end of a vent pipe

19. The pressure management apparatus of claim 18, wherein the portion of the filter is trapped between a portion of the adapter and the portion of the housing to restrain movement of the filter with respect to the housing and adapter, and wherein disengaging the housing from the adapter releases the filter to permit removal of the filter from components of the pressure management apparatus.

20. The pressure management apparatus of claim 18, wherein the adapter comprises threads for coupling to an end of a vent pipe and additional threads for removable engagement with the housing.

21. The pressure management apparatus of claim 18, wherein the adapter includes an interior and wherein the filter extends at least partially into the interior of the adapter.

22. The pressure management apparatus of claim 15, wherein the pliable closed-cell material comprises foam.

23. The pressure management apparatus of claim 15, wherein the pliable closed-cell material comprises a polymeric material.

24. The pressure management apparatus of claim 15, wherein the pliable closed-cell material comprises an elastomeric material.

25. The pressure management apparatus of claim 15, wherein the pliable closed-cell material comprises epichlorohydrin.

26. A pressure management apparatus for coupling to an end of a vent pipe comprising:

- a) an adapter configured for coupling to an end of a vent pipe;

b) a housing including an interior and a connector removably engaged with the adapter;

c) a pressure valve located at least partially within the interior of the housing and including a high pressure valve portion and a low pressure valve portion, a high pressure valve seal is arranged between an area of the high pressure valve portion and an area of the housing and a low pressure valve seal is arranged between an area of the low pressure valve portion and another area of the high pressure valve portion, the low pressure valve seal and high pressure valve seal are each formed from a pliable closed-cell epichlorohydrin, wherein the high pressure valve portion is configured to release fluid from an interior of a storage tank to the surrounding environment when the pressure within an interior of a storage tank rises above a predetermined level and wherein the lower pressure valve portion is configured to admit fluid from the surrounding environment to an interior of a storage tank when the pressure within an interior of a storage tank drops to a predetermined pressure; and

d) a removable filter including a portion configured to be selectively securely held between a portion of the adapter and a portion of the housing to restrain movement of the filter with respect to the housing and the adapter in use, the filter being adapted to minimize and/or prevent debris from traveling from an interior of a storage tank to the interior of the housing, and wherein, in use, disengaging the

connector of the housing from the adapter releases the filter to permit removal of the filter from components of the pressure management apparatus.

27. A method of providing a pressure management apparatus including an adapter configured for coupling to an end of a vent pipe, a housing including an interior and a connector removably engaged with the adapter, a pressure valve located at least partially within the interior of the housing, and a removable filter including a portion trapped between a portion of the adapter and a portion of the housing to restrain movement of the filter with respect to the housing and the adapter, the method comprising the steps of:

- a) disengaging the connector of the housing from the adapter to release the filter;
  - b) removing the filter from an area of the pressure management apparatus;
  - c) inserting a new filter into the area of the pressure management apparatus;
- and
- d) re-engaging the connector of the housing to the adapter such that a portion of the new filter is trapped between a portion of the adapter and a portion of the housing to restrain movement of the new filter with respect to the housing and the adapter.



28. A method of providing a pressure management apparatus comprising a housing including an interior and a connector removably engaged with an end of a vent pipe, a pressure valve located at least partially within the interior of the housing, and a removable filter including a portion trapped between a portion of the vent pipe and a portion of the housing to restrain movement of the filter with respect to the housing and the vent pipe, the method comprising the steps of:

a) disengaging the connector of the housing from the vent pipe to release the filter;

b) removing the filter from an area;

c) inserting a new filter into the area; and

d) re-engaging the connector of the housing with the vent pipe such that a portion of the new filter is trapped between a portion of the vent pipe and a portion of the housing to restrain movement of the new filter with respect to the housing and the vent pipe.

29. A method of providing a pressure management apparatus including an adapter configured for coupling to an end of a vent pipe, a housing including an interior and a connector removably engaged with the adapter, and a pressure valve located at least partially within the interior of the housing, and a removable filter

including a portion trapped between a portion of the adapter and a portion of the housing to restrain movement of the filter with respect to the housing and the adapter, the method comprising the steps of:

a) disengaging the connector of the housing from the adapter to release the filter;

b) cleaning the filter; and

c) re-engaging the connector of the housing to the adapter such that a portion of the filter is trapped between a portion of the adapter and a portion of the housing to restrain movement of the filter with respect to the housing and the adapter.

30. A method of providing a pressure management apparatus comprising a housing including an interior and a connector removably engaged with an end of a vent pipe, a pressure valve located at least partially within the interior of the housing, and a removable filter including a portion trapped between a portion of the vent pipe and a portion of the housing to restrain movement of the filter with respect to the housing and the vent pipe, the method comprising the steps of:

a) disengaging the connector of the housing from the vent pipe to release the filter;

b) cleaning the filter; and

c) re-engaging the connector of the housing with the vent pipe such that a portion of the filter is trapped between a portion of the vent pipe and a portion of the housing to restrain movement of the filter with respect to the housing and the vent pipe.